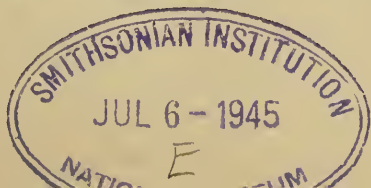


PROCEEDINGS
OF THE
BIOLOGICAL SOCIETY OF WASHINGTONNOTES ON FISHES IN THE ZOOLOGICAL MUSEUM
OF STANFORD UNIVERSITY.XVIII.—TWO NEW SPECIES OF TAMANKA, WITH
A KEY TO THE SPECIES FROM THE PHILIPPINES
AND CHINA.

ALBERT W. C. T. HERRE.

The genus *Tamanka* which I established in 1927, includes those medium sized to very small gobies which are especially distinguished by the presence of many small cycloid scales on the opercles, while the rest of the head is naked. This is in marked contrast to the large assemblage of small gobies which I include in the genus *Vaimosa*, particularly distinguished by having a small number of large ctenoid scales on the opercles, the rest of the head being naked. Other characters of *Tamanka* are the comparatively numerous scales, 38 to 54 in a lateral series, and the increased number of small predorsal scales. The body may be thick and robust, or laterally compressed and slender, with a large broad head, usually flattened on top. The vertical fins are small and low, the dorsals well separated; the broad rounded caudal is usually shorter than the head, with numerous accessory spines which extend upon the caudal peduncle; the oblique terminal mouth has thick lips, with 4 or 5 rows of minute teeth in the lower jaw and 3 or 4 rows in the upper jaw, with an outer row of slightly larger teeth; no canines; gill openings wide, with broad isthmus; no free silky rays on the pectoral. Dorsal VI-I-7 to 8; anal I-7 to 9.

Most of the species live in mangrove or nipa swamps, or in tidal creeks, where the water is more or less brackish. One species, *Tamanka siitensis*,



the type of the genus, lives in fresh water crater lakes on the island of Jolo, and also in streams on Mindanao. So far as known, it is the only fish occurring in the crater lakes of Jolo. In general the species of *Tamanka* are inconspicuous little fishes, overlooked by collectors and scientific students as they live in places little visited or known. Apparently they are rare, with the exception of *Tamanka siitensis*, which swarms in the waters it inhabits. Probably collecting at a different time of year in proper localities would show the species of *Tamanka* to be as abundant as other small gobies, such as *Vaimosa*.

KEY TO THE SPECIES OF TAMANKA KNOWN FROM THE PHILIPPINES AND CHINA.

- A. Scales 38 to 46.
- B. With 2 longitudinal dark brown bands*T. bivittata*
Habitat: Hainan Island and Kwangtung Province,
China.
- BB. No longitudinal dark bands.
- C. Body dark brown.
- D. Uniform dark brown, without markings;
lateral scales 38; transverse 12*T. umbra*
Habitat: Palawan, P. I.
- DD. Dark brown with 9 vertical black bands;
lateral scales 44-46; transverse 14.....
T. talavera
Habitat: Near Capiz, Panay, P. I.
- CC. Ground color pale tan with brown cross bands.
- E. Lateral scales 38, transverse 12,
predorsal 16, opercular 24.....*T. mindora*
Habitat: Southwestern Min-
doro, P. I.
- EE. Lateral scales 44, transverse 18,
predorsal 24, opercular 40.....
T. philippina
Habitat: Mangarin, Mindoro,
P. I.
- AA. Scales 52-54.
- F. Body robust, uniform
brown to black; predorsal
scales 20-24*T. siitensis*
Habitat: Jolo and Min-
danao, P. I.
- FF. Body slender, brownish
yellow, with 10 vertical
cross bars; predorsal scales
25-30.....*T. tagala*
Habitat: Luzon, and
Sitankai, Sulu Islands,
P. I.

Tamanka mindora Herre, new species.

Dorsal VI-I-7; anal I-7; scales in lateral series 38; transverse series 12; predorsal scales 16; opercular scales 23 or 24.

The body is rather stout with very gently convex back, the ventral profile horizontal; the depth is 5.1, the head 3.5, the caudal 3.8 times in the length. The oblique mouth is broad, the posterior angle of the maxillary beneath the anterior margin of the pupil; the tip of the tongue is truncate when viewed from above, but is slightly indented when seen from below; the minute teeth are typical of the genus; the eye is in the front half of the head, dorso-lateral in position, 4.4 times in the head, and slightly exceeds the convex broadly rounded snout; the flat interorbital equals the eye; the postorbital is 56% of the length of the head. The vertical fins are small, the dorsals far apart; the tips of the first dorsal spines are filiform, the third spine longest, 2.2 in the head; the second dorsal and anal equal the first dorsal in height and fall far short of the caudal base when depressed; the pointed pectoral is 4.25 times in the length, the pointed ventral 4.6, extending about half way to the anal origin; the least depth of the caudal peduncle is 2.1 in its own length.

The color in alcohol is very pale yellowish tan, largely concealed by 9 or 10 dorsal cross bands of brown and a median row of 8 brown spots along the side; the head is mottled with brown, a darker spot on the opercle; 2 small dark brown spots on the caudal base; the upper half of the first dorsal, except the white thread-like tips, is black; the second dorsal and anal are mottled with brown; the anal and central part of the ventrals are brown; the pectoral is clear or nearly so.

Described from the type, a male 23 mm. long, collected from a brackish water mangrove swamp at Hacienda Waterous, Mangarin, Mindoro, P. I. A juvenile male taken with the type was not used in writing the description.

Tamanka philippina Herre, new species.

Dorsal VI-I-8; anal I-9; lateral scales 44, in transverse series 18; predorsal scales 24; opercular scales 40.

The slender body is laterally compressed, the head broader than the trunk, the dorsal profile nearly horizontal, the ventral outline gently convex; the depth is 5.1, the head 3.5, the damaged caudal 4.4 times in the length; the breadth of the head is 1.6 times in its own length; the eye is high up, dorso-lateral, in the anterior half of the head, 4.2 times in the head; the broad blunt convex snout equals the flat interorbital, 5.25, the postorbital 1.75 times in the head; the oblique mouth is terminal, the angle of the maxillary beneath the anterior third of the eye; the minute teeth are typical of the genus; the truncate tongue is broad at the tip. The vertical fins are all low, the first dorsal with filiform tips, none of them reaching the second dorsal when depressed; the second spine is longest, 2.1 in the head or 7.33 in the length; the middle rays of the second dorsal are highest, equal to the second spine of the first dorsal; the posterior anal rays are highest, a little less than the longest dorsal rays; the

second dorsal and anal fall far short of the caudal base when depressed; the pectorals have been damaged but equal the ventrals, 1.5 in the head or 5.2 times in the length; the ventrals reach little more than half way to the anal origin; the least depth of the caudal peduncle is 1.6 times in its own length.

The color in alcohol is pale whitish tan, with 8 anastomosing brown stripes forming a network over the back and on the sides, and on top of the head; two diagonal stripes from the eye across the preopercle and a similar stripe from the angle of the mouth to the front margin of the opercle; a blue-black spot below the middle of the opercle, just behind its front margin; a white basal band on the first dorsal, and a median black band, the first spine and the tips of the others all white; 3 blackish brown spots on the second dorsal base and a median brown band on the posterior half; a heavy dark brown band on the caudal base, the rest of the fin barred and spotted with brown; the other fins colorless or nearly so.

Described from the type and only specimen, a male 22 mm. long, taken from brackish water at Hacienda Waterous, Mangarin, Mindoro, P. I.

The scalation of this little fish is entirely different from that of any of its congeners.